ENTERED 1645

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/955,502

DATE: 03/27/2002
TIME: 13:54:23

Input Set : **A:\Uw975591.app**
Output Set: **N:\CRF3\03272002\I955502.raw**

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 3 <110> APPLICANT: Downs, Diana M.
 4       Gralnick, Jeff A.
 6 <120> TITLE OF INVENTION: Method for Preventing Superoxide Damage to Cells and
 7       Oxygen-Labile Proteins
 9 <130> FILE REFERENCE: 960296.97559
11 <140> CURRENT APPLICATION NUMBER: 09/955,502
12 <141> CURRENT FILING DATE: 2001-09-18
14 <150> PRIOR APPLICATION NUMBER: 60/234,588
15 <151> PRIOR FILING DATE: 2000-09-22
17 <160> NUMBER OF SEQ ID NOS: 33
19 <170> SOFTWARE: PatentIn Ver. 2.1
21 <210> SEQ ID NO: 1
22 <211> LENGTH: 65
23 <212> TYPE: PRT
24 <213> ORGANISM: Artificial Sequence
26 <220> FEATURE:
27 <223> OTHER INFORMATION: Description of Artificial Sequence:YggX consensus
28       sequence
30 <220> FEATURE:
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32 <222> LOCATION: (2)
33 <223> OTHER INFORMATION: can be any amino acid
35 <220> FEATURE:
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37 <222> LOCATION: (4)..(6)
38 <223> OTHER INFORMATION: can be any amino acid
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42 <222> LOCATION: (8)..(22)
43 <223> OTHER INFORMATION: can be any amino acid
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46 <221> NAME/KEY: UNSURE
47 <222> LOCATION: (24)..(26)
48 <223> OTHER INFORMATION: can be any amino acid
50 <220> FEATURE:
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52 <222> LOCATION: (28)..(38)
53 <223> OTHER INFORMATION: can be any amino acid
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56 <221> NAME/KEY: UNSURE
57 <222> LOCATION: (40)..(41)
58 <223> OTHER INFORMATION: can be any amino acid
60 <220> FEATURE:
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Input Set : A:\Uw975591.app
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 62 <222> LOCATION: (43)..(45)
 63 <223> OTHER INFORMATION: can be any amino acid
 65 <220> FEATURE:
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 67 <222> LOCATION: (48)
 68 <223> OTHER INFORMATION: can be any amino acid
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 71 <221> NAME/KEY: UNSURE
 72 <222> LOCATION: (50)
 73 <223> OTHER INFORMATION: can be any amino acid
 75 <220> FEATURE:
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 77 <222> LOCATION: (53)..(54)
 78 <223> OTHER INFORMATION: can be any amino acid
 80 <220> FEATURE:
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 82 <222> LOCATION: (56)..(62)
 83 <223> OTHER INFORMATION: can be any amino acid
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 87 <222> LOCATION: (64)..(65)
 88 <223> OTHER INFORMATION: can be any amino acid
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     92 1               5                   10                  15
W--> 94 Xaa Xaa Xaa Xaa Xaa Xaa Pro Xaa Xaa Xaa Gly Xaa Xaa Xaa Xaa Xaa
     95              20                  25                  30
W--> 97 Xaa Xaa Xaa Xaa Xaa Xaa Trp Xaa Xaa Trp Xaa Xaa Xaa Gln Thr Xaa
     98              35                  40                  45
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     101         50                  55                  60
W--> 103 Xaa
     104 65
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    108 <211> LENGTH: 87
    109 <212> TYPE: PRT
    110 <213> ORGANISM: Bordetella pertussis
    112 <400> SEQUENCE: 2
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    114 1               5                   10                  15
    116 Leu Asp Phe Pro Pro Tyr Pro Gly Glu Leu Gly Thr Arg Ile Trp Gln
    117             20                  25                  30
    119 Gln Ile Ser Lys Glu Ala Trp Glu Glu Trp Lys Gln Ile Gln Thr Arg
    120             35                  40                  45
    122 Leu Val Asn Glu Asn Arg Leu Asn Leu Ala Asp Ala Arg Ala Arg Lys
    123         50                  55                  60
    125 Tyr Leu Gln Gln Gln Met Glu Arg Phe Leu Phe Glu Asp Gly Thr Val
    126 65                  70                  75                  80
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128 Glu Ala Gln Gly Tyr Val Pro
129                 85
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133 <211> LENGTH: 87
134 <212> TYPE: PRT
135 <213> ORGANISM: Bordetella parapertussis
137 <400> SEQUENCE: 3
138 Met Ser Arg Ile Val Asn Cys Val Lys Leu Lys Arg Glu Ala Glu Gly
139  1               5                  10                  15
141 Leu Asp Phe Pro Pro Tyr Pro Gly Glu Leu Gly Thr Arg Ile Trp Gln
142             20                  25                  30
144 Gln Ile Ser Lys Glu Ala Trp Glu Glu Trp Lys Gln Ile Gln Thr Arg
145             35                  40                  45
147 Leu Val Asn Glu Asn Arg Leu Asn Leu Ala Asp Ala Arg Ala Arg Lys
148         50                  55                  60
150 Tyr Leu Gln Gln Gln Met Glu Arg Phe Leu Phe Glu Asp Gly Thr Val
151  65                  70                  75                  80
153 Glu Ala Gln Gly Tyr Val Pro
154                 85
157 <210> SEQ ID NO: 4
158 <211> LENGTH: 86
159 <212> TYPE: PRT
160 <213> ORGANISM: Bordetella bronchiseptica
162 <400> SEQUENCE: 4
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164  1               5                  10                  15
166 Leu Asp Phe Pro Pro Tyr Pro Gly Glu Leu Gly Thr Arg Ile Trp Gln
167             20                  25                  30
169 Gln Ile Ser Lys Glu Ala Trp Glu Glu Trp Lys Gln Ile Gln Thr Arg
170             35                  40                  45
172 Leu Val Asn Glu Asn Arg Leu Asn Leu Ala Asp Ala Arg Ala Arg Lys
173         50                  55                  60
175 Tyr Leu Gln Gln Gln Met Glu Arg Phe Leu Phe Glu Asp Gly Thr Val
176  65                  70                  75                  80
178 Glu Ala Gln Gly Val Pro
179                 85
182 <210> SEQ ID NO: 5
183 <211> LENGTH: 91
184 <212> TYPE: PRT
185 <213> ORGANISM: Actinobacillus actinomycetemcomitans
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192             20                  25                  30
194 Ser Ile Ser Lys Gln Ala Trp Gly Glu Trp Met Lys Lys Gln Thr Met
195             35                  40                  45
197 Leu Val Asn Glu Lys Lys Leu Asn Met Met Asn Ala Glu His Arg Lys
198         50                  55                  60
```

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203 His Ile Glu Gly Tyr Thr Pro Pro Glu Ala Lys
204              85              90
207 <210> SEQ ID NO: 6
208 <211> LENGTH: 87
209 <212> TYPE: PRT
210 <213> ORGANISM: Pasteurella multocida
212 <400> SEQUENCE: 6
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214  1               5               10              15
216 Leu Asp Phe Gln Leu Tyr Pro Gly Glu Leu Gly Lys Arg Ile Phe Asp
217              20              25              30
219 Ser Ile Ser Lys Gln Ala Trp Arg Glu Trp Met Lys Lys Gln Thr Met
220              35              40              45
222 Leu Val Asn Glu Lys Lys Leu Asn Met Met Asn Ala Asp His Arg Gln
223       50              55              60
225 Leu Leu Glu Gln Glu Met Val Asn Phe Leu Phe Glu Gly Lys Asp Val
226  65              70              75              80
228 His Ile Glu Gly Tyr Val Pro
229              85
232 <210> SEQ ID NO: 7
233 <211> LENGTH: 87
234 <212> TYPE: PRT
235 <213> ORGANISM: Haemophilus influenzae
237 <400> SEQUENCE: 7
238 Met Ala Arg Thr Val Phe Cys Glu Tyr Leu Lys Lys Glu Ala Glu Gly
239  1               5               10              15
241 Leu Asp Phe Gln Leu Tyr Pro Gly Glu Leu Gly Lys Arg Ile Phe Asp
242              20              25              30
244 Ser Val Ser Lys Gln Ala Trp Gly Glu Trp Ile Lys Lys Gln Thr Met
245              35              40              45
247 Leu Val Asn Glu Lys Lys Leu Asn Met Met Asn Ala Glu His Arg Lys
248       50              55              60
250 Leu Leu Glu Gln Glu Met Val Asn Phe Leu Phe Glu Gly Lys Asp Val
251  65              70              75              80
253 His Ile Glu Gly Tyr Val Pro
254              85
257 <210> SEQ ID NO: 8
258 <211> LENGTH: 87
259 <212> TYPE: PRT
260 <213> ORGANISM: Haemophilus ducreyi
262 <400> SEQUENCE: 8
263 Met Ala Arg Met Val Phe Cys Glu Tyr Leu Lys Lys Glu Ala Glu Gly
264  1               5               10              15
266 Leu Asp Phe Gln Leu Tyr Pro Gly Glu Leu Gly Lys Arg Ile Phe Asn
267              20              25              30
269 Ser Ile Ser Lys Gln Ala Trp Ala Glu Trp Ile Lys Lys Gln Thr Met
270              35              40              45
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PATENT APPLICATION: US/09/955,502   TIME: 13:54:23

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Output Set: N:\CRF3\03272002\I955502.raw

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272 Leu Val Asn Glu Lys Lys Leu Asn Met Met Asn Pro Glu His Arg Gln
273      50              55              60
275 Leu Leu Glu Ala Glu Met Val Asn Phe Leu Phe Glu Gly Lys Asp Val
276 65              70              75              80
278 His Ile Asp Gly Tyr Val Pro
279              85
282 <210> SEQ ID NO: 9
283 <211> LENGTH: 88
284 <212> TYPE: PRT
285 <213> ORGANISM: Shewanella putrefasciens
287 <400> SEQUENCE: 9
288 Met Ala Arg Thr Val Asn Cys Val His Leu Asn Lys Glu Ala Asp Gly
289   1              5              10              15
291 Leu Asp Phe Gln Leu Tyr Pro Gly Asp Leu Gly Lys Arg Ile Phe Asp
292              20              25              30
294 Asn Ile Ser Lys Glu Ala Trp Gly Leu Trp Gln Lys Lys Gln Thr Met
295              35              40              45
297 Leu Ile Asn Glu Lys Lys Leu Asn Met Met Asn Val Asp Asp Arg Lys
298      50              55              60
300 Phe Leu Glu Ala Gln Met Thr Ser Phe Leu Phe Glu Gly Lys Asp Val
301 65              70              75              80
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304              85
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308 <211> LENGTH: 90
309 <212> TYPE: PRT
310 <213> ORGANISM: Vibrio cholerae
312 <400> SEQUENCE: 10
313 Met Ala Arg Thr Val Phe Cys Thr Arg Leu Gln Lys Glu Ala Asp Gly
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316 Leu Asp Phe Gln Leu Tyr Pro Gly Glu Leu Gly Lys Arg Ile Phe Asp
317              20              25              30
319 Asn Ile Cys Lys Glu Ala Trp Ala Gln Trp Gln Thr Lys Gln Thr Met
320              35              40              45
322 Leu Ile Asn Glu Lys Lys Leu Asn Met Met Asp Pro Glu His Arg Lys
323      50              55              60
325 Leu Leu Glu Gln Glu Met Val Asn Phe Leu Phe Glu Gly Lys Glu Val
326 65              70              75              80
328 His Ile Glu Gly Tyr Thr Pro Pro Ala Lys
329              85              90
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333 <211> LENGTH: 91
334 <212> TYPE: PRT
335 <213> ORGANISM: Escherichia coli K-12 MG1655
337 <400> SEQUENCE: 11
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342              20              25              30
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 03/27/2002
PATENT APPLICATION: US/09/955,502   TIME: 13:54:24

Input Set : A:\Uw975591.app
Output Set: N:\CRF3\03272002\I955502.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 2,4,5,6,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,24,25
Seq#:1; Xaa Pos. 26,28,29,30,31,32,33,34,35,36,37,38,40,41,43,44,45,48,50
Seq#:1; Xaa Pos. 53,54,56,57,58,59,60,61,62,64,65

VERIFICATION SUMMARY   DATE: 03/27/2002
PATENT APPLICATION: **US/09/955,502**   TIME: 13:54:24

Input Set : **A:\Uw975591.app**
Output Set: **N:\CRF3\03272002\I955502.raw**

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L:91  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:94  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:16
L:97  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:32
L:100 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:48
L:103 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:64
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